



## UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/697,801	10/31/2003	Do-Young Kim	Q77358	1154
23373 7590 02/14/2011				
SUGHRUE MION, PLLC				
2100 PENNSYLVANIA AVENUE, N.W.				
SUITE 800				
WASHINGTON, DC 20037				
EXAMINER				
SAINT CYR, JEAN D				
ART UNIT		PAPER NUMBER		
2425				
NOTIFICATION DATE		DELIVERY MODE		
02/14/2011		ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

sughrue@sughrue.com  
PPROCESSING@SUGHRUE.COM  
USPTO@SUGHRUE.COM

# Office Action Summary

**Application No.**

10/697,801

**Applicant(s)**

KIM, DO-YOUNG

**Examiner**

JEAN Duclos SAINT CYR

**Art Unit**

2425

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 October 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 October 2003 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-040)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB-08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### **Continued Examination Under 37 CFR 1.114.**

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/25/2010 has been entered.

### **Response to Amendment**

This action is in response to applicant's amendment filed on 10/25/2010. Claims 1-12 are still pending in the current application. **This action is made NON- FINAL.**

### **Response to Arguments**

Applicant's arguments with respect to claims 1-12 have been considered but are moot in view of the new ground(s) of rejection. With respect to claim 1, 3, 6 and 11, applicant argues that the cited references did not disclose , tuning to a frequency the selection channel and updating only EPG information corresponding to the selected channel number at the tuned channel.

However, Kondo et al disclose the system receives the change channel request, displays the selected channel video, and updates the program and system information of the newly selected channel prior to displaying the updated EPG, col.7, lines 60-67; the system tunes to the broadcast frequency of the selected channel, and the EPG of the system displays only updated program and system information for that channel,col.12,lines 36-38; by only updating program and system information for that channel corresponding to the selected channel Also, Kondo et al disclose once a channel has been selected, a control signal is sent to the processor to thereby instruct the tuner/decoder of the system of this invention to tune to the appropriate broadcast frequency, the processor compares the stored information with the currently broadcasting information as described above and updates the memory as necessary, col.4, lines 25-37; that means the system is capable of tuning to the selected channel..

And O'Callaghan et al disclose data entries for a particular program can be updated only when that program is selected for reception. This approach imposes fewer demands on the CPU used for implementing the DET, col.7, lines 3-6; that means the system only updates EPG information the selected channel and that reduces latency in processing channel switching. As a result, this action is made non-final.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Inoue et al in view of Kondo et al further in view of O'Callaghan, US No. 5594492

Re claim 1, Inoue et al disclose a method of controlling a program guide display using an electronic program guide, the method comprising(a method of displaying a program guide, lines 2-3, 0007):

in response to a command to enter an EPG mode, displaying EPG information of N channel number, which EPG information has been previously stored(see fig.5, element 46, EPG mode; channels in a greater number than 5 may be simultaneously displayed, lines 5-6, 0082; n channels, 0117; if the EPG key 46 is pressed, the picture plane of the TV display is changed from the normal program picture plane to the EPG picture plane as shown in FIG. 3, 0088; see fig.1, element 200, EPG output; the control data including

the SI extracted by the demultiplexer 6 is stored into a RAM 16, 0066; see fig.1, element 14, flash memory for EPG; see fig.1, element 16, RAM information for EPG text).

But Inoue et al did not explicitly disclose whenever a selected channel number is selected from among the N channels number for which the EPG information is displayed, tuning to a frequency the selection channel and updating only EPG information corresponding to the selected channel number at the tuned channel.

However, Kondo et al disclose whenever a selected channel number is selected from among the N channels number for which the EPG information is displayed, tuning to a frequency the selection channel (see fig.5; the system receives the change channel request, displays the selected channel video, and updates the program and system information of the newly selected channel prior to displaying the updated EPG, col.7, lines 60-67; col.4, lines 25-37; the system tunes to the broadcast frequency of the selected channel, and the EPG of the system displays only updated program and system information for that channel,col.12, lines 1-38; from this information).

It would have been obvious for any person of ordinary skill in the art at that time the invention was made to incorporate the teaching of Kondo into the invention of Inoue for the purpose of allowing the system retrieve the information of the selected channel.

And O'Callaghan et al disclose updating only EPG information corresponding to the selected channel number at the tuned channel(data entries for a particular program can be updated only when that program is selected for reception. This approach imposes fewer demands on the CPU used for implementing the DET,col.7, lines 3-6).

It would have been obvious for any person of ordinary skill in the art at that time the invention was made to incorporate the teaching of O'Callaghan into the invention of Inoue as modified by Kondo for the purpose of latency in processing change of channels.

Re claim 2, Inoue et al did not explicitly disclose wherein operation (a) further comprises tuning a channel of the N channels numbers for which the entry of the EPG mode is requested, and displaying updated EPG information.

However, Kondo et al disclose wherein operation further comprises tuning a channel of the N channels numbers for which the entry of the EPG mode is requested, and displaying updated EPG information (the EPG of the system displays only updated program and system information for that channel,col.12, lines 37-38).

It would have been obvious for any person of ordinary skill in the art at that time the invention was made to incorporate the teaching of Kondo into the invention of Inoue for purpose of users to visualize change in the EPG after a channel has been selected .

Re claim 3, Inoue et al disclose a method of controlling a program guide display in which an electronic program guide is displayed(see fig.1, element 200, EPG output) using one tuner(see fig.1, element 4, tuner);

the method comprising: in response to a command to enter an EPG mode( if the EPG key 46 is pressed, the picture plane of the TV display is changed from the normal program picture plane to the EPG picture plane as shown in FIG. 3, 0088);

displaying the EPG information of the current channel number, which is extracted in operation , and the EPG information of remaining channels numbers of the N channels numbers which has been previously stored(see fig.1, EPG output; the control data including the SI extracted by the demultiplexer 6 is stored into a RAM 16 under the control of a CPU 17. Also in the RAM 16, EPG text data to perform the EPG display is stored. A flash memory 14 stores various graphic data to perform the EPG display, 0066).

But Inoue et al did not explicitly disclose checking if EPG information of N channels numbers has been stored; if the EPG information of N channels has been stored, tuning a current channel of the N channels numbers and extracting corresponding EPG information; and if a selected channel number is selected from among the N channels for which the EPG information of N channels is displayed in operation tuning to a frequency of the selected channel number and updating only EPG information corresponding to the selected channel number at the tuned frequency.

However, Kondo et al disclose checking if EPG information of N channels numbers has been stored; if the EPG information of N channels has been stored, tuning a current channel of the N channels numbers and extracting corresponding EPG information; and if a selected channel number is selected from among the N channels for which the EPG information of N channels is displayed in operation tuning to a frequency of the selected channel number (a processor reads the currently broadcasting value of at least a portion of the system parameters from the appropriate PSI elementary streams, and compares those currently broadcasting values with previously stored values of those parameters to determine if the parameter values have changed. If a parameter value has changed, the currently broadcasting program and system information is read into memory to thereby update the stored program and system information, col.3, lines 3-11; the processor compares the stored information with the currently broadcasting information as described above and updates the memory as necessary,col.4, lines 35-38).

It would have been obvious for any person of ordinary skill in the art at that time the invention was made to incorporate the teaching of Kondo into the invention of Inoue for the purpose of allowing the system retrieve the information of the selected channel.

And O'Callaghan et al disclose updating only EPG information corresponding to the selected channel number at the tuned channel(data entries for a particular program can

be updated only when that program is selected for reception. This approach imposes fewer demands on the CPU used for implementing the DET, col.7, lines 3-6).

It would have been obvious for any person of ordinary skill in the art at that time the invention was made to incorporate the teaching of O'Callaghan into the invention of Inoue as modified by Kondo for the purpose of latency in processing change of channels.

Re claim 4, Inoue et al disclose wherein, in operation c, the updated EPG information of the current channel number and the EPG information of N-1 channels numbers of the EPG information of the N channels numbers which has been previously stored, is displayed( The control data including the SI extracted by the demultiplexer 6 is stored into a RAM 16 under the control of a CPU 17. Also in the RAM 16, EPG text data to perform the EPG display is stored, 0066; see fig.1, element 14, flash memory for EPG; see fig.1, element 16, RAM information for EPG text).

Re claim 5, Inoue et al disclose wherein, in operation d, the selected channel is selected by positioning a cursor at a broadcasting program of a current channel while an EPG information screen is displayed, determining whether the cursor moves (as to move the cursor, lines 7-8, 0087), and

if the cursor moves, determining whether the cursor moves vertically or horizontally (see fig.4, showing arrows when the cursor is moving vertically or horizontally).

Re claim 6, Inoue et al teach An apparatus configured to receive digital broadcasting, the apparatus receiving a transport stream incorporating EPG information(see fig.1, satellite digital broadcast receiving apparatus; see fig.1, element 6, transport stream; a transport stream , 0063),



the apparatus comprising: a demultiplexing unit (see fig.1, element 6, demultiplexer) configured to demultiplex the transport stream into a video stream, an audio stream, and the transport stream incorporating EPG information(The demultiplexer 6 extracts the audio data and video data corresponding to the selected service from among the inputted TS of the MPEG 2, and supplies them to an audio decoder 10 and a video decoder 8 respectively,0064);

an image signal processing unit configured to image-process streams demultiplexed by said demultiplexing unit; an EPG generating unit configured to generate a program guide screen using the EPG information(see fig.1, element 9, display processor; see fig.1, element 16, information for EPG text) ;

a display unit configured to display an image signal output from said image signal processing unit() and the EPG information output from said EPG generating unit(see fig.1, element 200, display unit; see fig.1, element 16, information for EPG text; see fig.1, element 9, display processor ; seefig.1, element 200, EPG output).

But Inoue did not explicitly disclose a control unit configured to tune a current channel number and to detect corresponding broadcast information upon receipt of a request command of an EPG mode to tune to frequency of a channel number selected from among channels numbers for which the EPG information is displayed by said display unit, and then to update EPG information corresponding to the selected channel number at the tuned frequency.

However, Kondo et al disclose a control unit configured to tune a current channel number and to detect corresponding broadcast information upon receipt of a request command of an EPG mode to tune to frequency of a channel number selected from among channels numbers for which the EPG information is displayed by said display unit(Once a channel has been selected, a control signal is sent to the processor to thereby instruct the tuner/decoder of the system of this invention to tune to the

appropriate broadcast frequency, the processor compares the stored information with the currently broadcasting information as described above and updates the memory as necessary, col.4, lines 25-37; the system receives the change channel request, displays the selected channel video, and updates the program and system information of the newly selected channel prior to displaying the updated EPG, col.7, lines 60-67; the system tunes to the broadcast frequency of the selected channel, and the EPG of the system displays only updated program and system information for that channel, col.12, lines 36-38).

It would have been obvious for any person of ordinary skill in the art at that time the invention was made to incorporate the teaching of Kondo into the invention of Inoue for the purpose of allowing the system retrieve the information of the selected channel.

And O'Callaghan et al disclose updating only EPG information corresponding to the selected channel number at the tuned channel (data entries for a particular program can be updated only when that program is selected for reception. This approach imposes fewer demands on the CPU used for implementing the DET, col.7, lines 3-6).

It would have been obvious for any person of ordinary skill in the art at that time the invention was made to incorporate the teaching of O'Callaghan into the invention of Inoue as modified by Kondo for the purpose of latency in processing change of channels.

Re claim 7, Inoue et al disclose further comprising a key input unit (see fig.5, key) configured to select a desired channel number from among the channels numbers (the tuner is tuned to a receiving band selected by the user, lines 8-9, 0063) for which EPG information is displayed (see fig.1, element 200, EPG output).

Re claim 8, Inoue et al disclose wherein the EPG information corresponding to the selected channel number is updated in a memory unit where such information is

stored (see fig.1, element 16, RAM; program information is to be erased by sequentially updating the SI, 0092).

Re claim 9, Inoue et al disclose wherein the EPG information corresponding to the selected channel number is updated in a memory unit where such information is stored (see fig.1, element 16, RAM; program information is to be erased by sequentially updating the SI, 0092).

Re claim 10, Inoue et al disclose wherein the EPG information corresponding to the selected channel is updated in a memory unit where such information is stored (see fig.1, element 16, RAM; program information is to be erased by sequentially updating the SI, 0092).

As claim 11, the claimed "in response to a command to enter an EPG mode...; updating only the EPG information stored for the selected channel number" is composed as the same structural elements as previously discussed with respect to the rejection of claim 3.

Re claim 12, is met as previously discussed with respect to claim 6.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jean Duclos Saintcyr whose phone number is 571-270-3224. The examiner can normally reach on M-F 7:30-5:00 PM EST. If attempts to reach the examiner by telephone are not successful, his supervisor, Brian Pendleton, can be reached on 571-272-7527. The fax number for the organization where the application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Retrieval (PAIR) system. Status information for published applications may be obtained from either private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair->

Art Unit: 2425

direct.uspto.gov. Should you have questions on access to the private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197(toll free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, dial 800-786-9199(IN USA OR CANADA) or 571-272-1000.

/Jean Duclos Saintcyr/

/Brian T Pendleton/

Supervisory Patent Examiner, Art Unit 2425